

REMARKS

Claims 1-20 are currently pending in the application. By this amendment, claim 1 is canceled without disclaimer or prejudice and claims 2, 7, 8, 12, 13, 18 and 19 are amended for the Examiner's consideration. Support for the amendment(s) is provided in at least Figures and at page(s) 3 of the specification. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Allowed Claims

Applicants appreciate the indication that claims 2-6, 13 and 15-17 contain allowable subject matter. Applicants have amended claims 2 and 13 to include subject matter of claim 1. Further claims were amended in order to properly depend from claim 1. Applicants submit that these amended claims, and the claims dependent thereon, are now in immediate condition for allowance.

Applicants submit that the remaining claims are also in condition for allowance for the following reasons.

35 U.S.C. §102 Rejection

Claims 7, 8, 10 and 11 were rejected under 35 U.S.C. §102(b) for being anticipated by Kangas. Claims 7 and 9 were rejected under 35 U.S.C. §102(b) for being anticipated by Lichti. These rejections are respectfully traversed.

In order to reject a claim under 35 U.S.C. §102(b), a single reference must recite every element or step of the rejected claim. Neither Kangas nor Lichti show the features of independent claim 7.

Claim 7 recites, in part,

preventing movement of the first groove relative to the second groove by inserting a curvilinear member in the first groove and the second groove.

Kangas does not show this feature. Kangas shows a drill shank having two members: jackbit 7 and shank 8. The shank 8 includes a peripheral lock slot 12 and the jackbit 7 includes a port 15. A lock lug 17 projects into the port 15 and extends into the slot 12 of the shaft 8 (paragraph spanning col. 1 and col. 2). The lock lug 17 is a straight extending member and not a curvilinear member, but is provided on a lock segment 16. Although the lock segment 16 appears to be curvilinear, it does not meet the features of claim 7. By way of example, the lock segment 16 is not inserted in the first groove and the second groove; instead, the lock lug 17 is projecting into the port 15 and extends into the slot 12.

Lichti, on the other hand, only shows a straight keyway member 13. The straight keyway member 13 fits into slots 14, 15 which are provided along a longitudinal axis of the respective shafts 11, 12. This keyway member 13 is not curvilinear.

For at least these reasons, Applicants request withdrawal of the §102(b) rejections.

35 U.S.C. §103 Rejection

Claims 1, 12, 14 and 18-20 were rejected under 35 U.S.C. §103(a) over Vetter in view of Callahan. This rejection is respectfully traversed.

The rejection of claims 1, 12, 14, 18 and 19 are moot in view of the above remarks.

Additionally, the features of Veters and Callahan cannot result in the claimed invention. For example, claim 20 recites, in part,

a first body portion having an end with a first groove extending substantially about a circumference thereabout;
a second body portion having an end with a second groove extending substantially about a circumference thereabout, the ends of the first and second body portions being in abutting contact such that the first groove and the second groove are in substantially alignment; and
a member positioned in at least a portion of the first and second grooves to retain the first body portion and the second body portion in alignment.

First, Veters does not show two keyways. In Veters, the injector body attaching device 12 includes an annular groove 62 and a first pin aperture 64 extending transversely through the upper portion of spring housing 40. As described at col. 4, lines 47-54, reference numeral 64 refers to a second pin aperture, not a keyway. Thus, Veters shows one keyway and two pin apertures. As discussed in the response filed on May 12, 2003, it is the use of this pin assembly which provides many shortcomings such as, for example, (i) requiring exacting machining, (ii) additional parts (pins), and (iii) at least three steps for assembly. Also, this is the type of system in which misalignment can occur; a problem solved by the present invention.

The Examiner is of the opinion that the Callahan reference shows the use of the curvilinear member. Applicants agree that Callahan shows a curvilinear member 12; however, there simply is no motivation for combining these two references. Additionally, even assuming there was some motivation, it is submitted that the combination would not work and that such combination would not result in the claimed invention.

First, Vettters and Callahan are of such divergent arts that one of ordinary skill in the art would not be expected or motivated to combine these references. Vettters is directed to class/subclass 239/533.2; whereas, Callahan is directed to class/subclass 287/52.05. Additionally, according to MPEP 2141.01(a)

while Patent Office classification of references and the cross-references in the official search notes are some evidence of "nonanalogy" or "analogy" respectively, the court has found "the similarities and differences in structure and function of the inventions to carry far greater weight." *In re Ellis*, 476 F.2d 1370, 1372, 177 USPQ 526, 527 (CCPA 1973)

Meeting this latter requirement, Vettters is directed to a fuel injector. On the other hand, Callahan is directed to a retaining ring apparatus. A person in the technological art of fuel injectors would not be reasonably expected or motivated to look in the arts of a retaining ring apparatus for combining into a fuel injector in order to achieve the claimed invention. The arts of Vettters and Callahan are of such a divergent nature that one of ordinary skill would not have know to look at these two references in order to achieve the claimed invention.

Second, Applicants submit that by using the Callahan features, a substantial part of the structure of the Vettters' apparatus would have to be reconfigured. For example, Vettters would need (i) an another keyway, (ii) the elimination of the pins and pin apertures and (iii) a reconfiguration of the body portions 36, 38 (to achieve the ends of the first and second body portions being in abutting contact). For example, with regard to the latter requirement, the shoulder of body portion 36 would have to be eliminated and the interface 52 of the lower body

portion 38 would have to be modified to (i) have the ends in abutment and (iii) use a substantially curvilinear member to attach the two body portions.

This simply would be improper according to MPEP 2143.01, which clearly indicates that a lack of motivation to combine references would exist if a reference has to be reconstructed in order to achieve the modification suggested by the Examiner. For example, MPEP 2143.01 recites, in part, that a lack of modification would exist when

the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." *In re Ratti*, 270 F.2d at 813, 123 USPQ at 352 (CCPA 1959)

Applicants further submit that even if a modification of the Vettters' reference was possible (which it is not), the curvilinear member of Callahan still would not work with the Vettters' apparatus to achieve the claimed invention. The Vettters' apparatus, using two body portions 36, 38 with the curvilinear member of Callahan, would result in the two body portions 36, 38 being attached about each outer circumference. That is, when the ends of the first and second body portions are in abutting contact, the curvilinear member of Callahan would be attached to an outer circumference at each end of the bod portions 36, 38. But, this configuration would clearly fail for these components.

Also, the Callahan curvilinear member is designed to be placed within a groove on an outer circumference of an inner body portion and a groove placed about a circumference on an

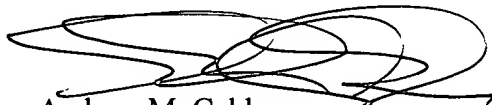
inner surface of an outer portion. The Callahan curvilinear member is not designed to be placed within a groove on an outer circumference of two body portions, of substantially equal diameter (which would be the result used by Veters in accordance with the discussion)

For at least these reasons, Applicants request withdrawal of the §103(a) rejection.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 23-1951.

Respectfully submitted,



Andrew M. Calderon
Registration No. 38,093

McGuireWoods, LLP
Suite 1800
1750 Tysons Blvd.
McLean, VA 22102
(703) 712-5426